



Actual Wellpath Report

Telstar Unit 3H AWP Proj: 17853'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #07
Area	Doddridge Co., WV	Telstar Unit 3H
Field	Doddridge	Telstar Unit 3H AWB
Facility	Deets Pad	

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999607	Report Generated	8/24/2019 at 5:35:19 PM
Convergence at slot	0.17" East	Database/Source file	WA_MPL_EasternUS_Defn/Telstar_Unit_3H_AWP_Proj_17853_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-19.51	4.34	1718086.98	14276542.49	39°18'51.993"N	80°43'31.405"W
Facility Reference Pt			1718082.64	14276561.99	39°18'52.186"N	80°43'31.460"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 317 (RKB) to Facility Vertical Datum	25.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1401.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot #07)	25.50ft
MD Reference Pt	H&P 317 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	342.55°

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Area	Doddridge Co., WV	Well	Telstar Unit 3H
Field	Doddridge	Wellbore	Telstar Unit 3H AWB
Facility	Deets Pad		

WELLPATH DATA (214 stations) † = interpolated/extrapolated station

MD ft	Inclination °	Azimuth °	TVD ft	Vert Sect ft	North ft	East ft	Grid East IUS ft	Grid North IUS ft	Latitude	Longitude	Closure Dist ft	Closure Dir °	DLS 1/100ft	Build Rate 1/100ft	Turn Rate 1/100ft	Comments
0.00	0.000	72.180	0.00	0.00	0.00	0.00	1718086.98	14276542.49	39°18'51.993"N	80°43'31.405"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	72.180	25.50	0.00	0.00	0.00	1718086.98	14276542.49	39°18'51.993"N	80°43'31.405"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.430	72.180	100.00	0.00	0.09	0.27	1718087.25	14276542.58	39°18'51.994"N	80°43'31.402"W	0.28	72.180	0.58	0.58	96.89	Gyrodala MS Gyro <17-1/2">(100'-393')
125.00	0.500	68.200	125.00	0.01	0.15	0.46	1718087.44	14276542.64	39°18'51.994"N	80°43'31.399"W	0.48	71.280	0.31	0.28	-15.92	
150.00	0.410	69.620	150.00	0.02	0.23	0.64	1718087.62	14276542.72	39°18'51.995"N	80°43'31.397"W	0.68	70.569	0.36	-0.36	5.68	
175.00	0.450	63.310	175.00	0.04	0.30	0.81	1718087.79	14276542.79	39°18'51.996"N	80°43'31.395"W	0.87	69.652	0.25	0.16	-25.24	
200.00	0.410	58.030	200.00	0.08	0.39	0.98	1718087.96	14276542.88	39°18'51.997"N	80°43'31.393"W	1.05	68.081	0.23	-0.16	-21.12	
225.00	0.380	55.170	225.00	0.13	0.49	1.12	1718088.10	14276542.96	39°18'51.998"N	80°43'31.391"W	1.22	66.481	0.14	-0.12	-11.44	
250.00	0.450	68.390	250.00	0.16	0.57	1.28	1718088.26	14276543.03	39°18'51.999"N	80°43'31.389"W	1.40	65.950	0.47	0.28	52.88	
275.00	0.320	100.750	274.99	0.15	0.61	1.44	1718088.42	14276543.10	39°18'51.999"N	80°43'31.387"W	1.56	67.176	0.79	-0.52	89.44	
300.00	0.340	103.110	299.99	0.09	0.59	1.58	1718088.56	14276543.08	39°18'51.999"N	80°43'31.385"W	1.69	69.600	0.30	0.08	49.44	
325.00	0.380	112.200	324.99	0.00	0.54	1.73	1718088.71	14276543.03	39°18'51.998"N	80°43'31.383"W	1.81	72.666	0.28	0.16	36.36	
350.00	0.480	116.370	349.99	-0.13	0.46	1.90	1718088.88	14276542.95	39°18'51.997"N	80°43'31.381"W	1.96	76.329	0.42	0.40	16.68	
375.00	0.540	110.820	374.99	-0.27	0.37	2.11	1718089.09	14276542.86	39°18'51.997"N	80°43'31.378"W	2.14	79.922	0.31	0.24	-22.20	
393.00	0.600	111.560	392.99	-0.39	0.31	2.27	1718089.25	14276542.80	39°18'51.996"N	80°43'31.376"W	2.29	82.244	0.34	0.33	4.11	
427.00	0.710	84.980	426.99	-0.54	0.26	2.65	1718089.63	14276542.75	39°18'51.995"N	80°43'31.371"W	2.66	84.337	0.94	0.32	-78.18	APS EM <12-1/4">(393')(427'-2568')
516.00	1.150	83.070	515.98	-0.83	0.42	4.09	1718091.06	14276542.91	39°18'51.997"N	80°43'31.353"W	4.11	84.148	0.50	0.49	-2.15	
612.00	1.460	84.350	611.95	-1.25	0.66	6.26	1718093.24	14276543.15	39°18'51.999"N	80°43'31.325"W	6.29	84.022	0.32	0.32	1.33	
705.00	1.260	94.860	704.93	-1.88	0.69	8.46	1718095.43	14276543.18	39°18'51.999"N	80°43'31.297"W	8.48	85.366	0.34	-0.22	11.30	
797.00	1.480	98.990	796.90	-2.80	0.41	10.64	1718097.61	14276542.90	39°18'51.997"N	80°43'31.270"W	10.65	87.771	0.26	0.24	4.49	
892.00	1.710	96.420	891.86	-3.91	0.06	13.26	1718100.23	14276542.55	39°18'51.993"N	80°43'31.236"W	13.26	89.724	0.25	0.24	-2.71	
987.00	1.710	96.080	986.82	-5.05	-0.24	16.08	1718103.05	14276542.25	39°18'51.990"N	80°43'31.200"W	16.08	90.872	0.01	0.00	-0.36	
1082.00	3.020	109.950	1081.74	-7.14	-1.25	19.84	1718106.81	14276541.24	39°18'51.980"N	80°43'31.153"W	19.88	93.602	1.49	1.38	14.60	
1177.00	5.080	109.870	1176.50	-11.21	-3.53	26.15	1718113.12	14276538.96	39°18'51.957"N	80°43'31.072"W	26.38	97.694	2.17	2.17	-0.08	
1271.00	5.370	107.280	1270.11	-16.24	-6.25	34.26	1718121.23	14276536.24	39°18'51.930"N	80°43'30.969"W	34.83	100.344	0.40	0.31	-2.76	
1366.00	5.680	105.930	1364.66	-21.36	-8.86	43.03	1718129.99	14276533.63	39°18'51.904"N	80°43'30.858"W	43.93	101.641	0.35	0.33	-1.42	
1461.00	4.520	101.090	1459.29	-25.73	-10.87	51.22	1718138.18	14276531.62	39°18'51.884"N	80°43'30.754"W	52.36	101.987	1.30	-1.22	-5.09	
1556.00	2.360	108.760	1554.11	-28.68	-12.22	56.75	1718143.70	14276530.27	39°18'51.870"N	80°43'30.684"W	58.05	102.157	2.32	-2.27	8.07	
1651.00	0.400	103.430	1649.08	-30.00	-12.93	58.92	1718145.88	14276529.56	39°18'51.863"N	80°43'30.656"W	60.32	102.377	2.07	-2.06	-5.61	
1746.00	2.280	283.950	1744.06	-29.19	-12.55	57.41	1718144.37	14276529.94	39°18'51.867"N	80°43'30.675"W	58.77	102.333	2.82	1.98	-188.93	

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Operator	ANTERO RESOURCES CORPORATION	Well	Teistar Unit 3H
Area	Doddridge Co., WV	Wellbore	Teistar Unit 3H AWP
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (214 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
1840.00	3.930	277.630	1837.92	-26.85	-11.67	52.40	1718139.36	14276530.82	39°18'51.876"N	80°43'30.739"W	53.69	102.558	1.79	1.76	-6.72	
1935.00	2.850	261.790	1932.75	-25.09	-11.58	46.84	1718133.80	14276530.92	39°18'51.877"N	80°43'30.810"W	48.25	103.885	1.49	-1.14	-16.67	
2030.00	1.550	195.410	2027.69	-25.79	-13.15	44.16	1718131.12	14276529.34	39°18'51.862"N	80°43'30.844"W	46.08	106.588	2.78	-1.37	-69.87	
2124.00	2.510	143.470	2121.64	-28.80	-16.03	45.05	1718132.01	14276526.46	39°18'51.833"N	80°43'30.833"W	47.81	109.593	2.10	1.02	-55.26	
2219.00	2.250	134.810	2216.56	-32.42	-19.02	47.61	1718134.57	14276523.48	39°18'51.804"N	80°43'30.800"W	51.27	111.778	0.47	-0.27	-9.12	
2314.00	2.190	116.540	2311.49	-35.33	-21.15	50.55	1718137.51	14276521.35	39°18'51.782"N	80°43'30.763"W	54.80	112.698	0.74	-0.06	-19.23	
2409.00	3.090	123.210	2406.38	-38.57	-23.36	54.32	1718141.28	14276519.14	39°18'51.760"N	80°43'30.715"W	59.13	113.269	1.00	0.95	7.02	
2504.00	3.830	116.430	2501.21	-42.75	-26.17	59.30	1718146.26	14276516.33	39°18'51.732"N	80°43'30.652"W	64.82	113.814	0.89	0.78	-7.14	
2568.00	4.010	115.530	2565.06	-45.76	-28.09	63.24	1718150.19	14276514.41	39°18'51.713"N	80°43'30.602"W	69.19	113.950	0.80	0.28	-1.41	
2648.00	4.930	114.190	2644.82	-49.95	-30.70	68.90	1718155.85	14276511.80	39°18'51.687"N	80°43'30.530"W	75.43	114.020	1.16	1.15	-1.68	APS EM <8-3/4"> (2568)-(2648)-(6541)
2742.00	4.650	111.910	2738.49	-55.05	-33.78	76.12	1718163.07	14276508.72	39°18'51.657"N	80°43'30.438"W	83.28	113.932	0.36	-0.30	-2.43	
2838.00	6.220	99.100	2834.06	-59.84	-36.06	84.86	1718171.81	14276506.45	39°18'51.634"N	80°43'30.327"W	92.20	113.019	2.06	1.64	-13.34	
2933.00	8.890	104.810	2928.23	-66.06	-38.75	97.04	1718183.98	14276503.76	39°18'51.607"N	80°43'30.172"W	104.49	111.765	2.92	2.81	6.01	
3028.00	11.560	110.660	3021.71	-75.86	-43.98	113.05	1718199.99	14276498.53	39°18'51.555"N	80°43'29.968"W	121.30	111.258	3.01	2.81	6.16	
3122.00	12.310	108.590	3113.68	-87.57	-50.50	131.36	1718218.29	14276492.01	39°18'51.490"N	80°43'29.736"W	140.73	111.028	0.92	0.80	-2.20	
3217.00	12.440	102.360	3206.48	-98.61	-55.92	150.96	1718237.88	14276486.59	39°18'51.436"N	80°43'29.487"W	160.98	110.326	1.41	0.14	-6.56	
3312.00	12.870	96.160	3299.17	-107.94	-59.24	171.47	1718258.38	14276483.27	39°18'51.402"N	80°43'29.226"W	181.42	109.060	1.50	0.45	-6.53	
3407.00	14.500	99.650	3391.47	-117.59	-62.37	193.72	1718280.62	14276480.14	39°18'51.371"N	80°43'28.943"W	203.51	107.848	1.92	1.72	3.67	
3501.00	14.960	95.470	3482.39	-127.68	-65.50	217.40	1718304.29	14276477.01	39°18'51.339"N	80°43'28.642"W	227.05	106.768	1.23	0.49	-4.45	
3596.00	14.770	96.280	3574.21	-137.33	-68.00	241.64	1718328.52	14276474.52	39°18'51.314"N	80°43'28.333"W	251.02	105.716	0.30	-0.20	0.85	
3691.00	15.610	101.020	3665.89	-148.29	-71.76	266.22	1718353.10	14276470.75	39°18'51.276"N	80°43'28.021"W	275.73	105.086	1.58	0.88	4.99	
3786.00	16.290	106.220	3757.24	-161.78	-77.93	291.56	1718378.43	14276464.59	39°18'51.214"N	80°43'27.698"W	301.80	104.964	1.67	0.72	5.47	
3884.00	15.970	102.990	3851.38	-176.23	-84.80	317.90	1718404.75	14276457.72	39°18'51.145"N	80°43'27.364"W	329.01	104.936	0.97	-0.33	-3.30	
3978.00	12.810	101.800	3942.42	-187.87	-89.84	340.71	1718427.55	14276452.69	39°18'51.095"N	80°43'27.074"W	352.35	104.772	3.38	-3.36	-1.27	
4073.00	11.290	95.380	4035.33	-196.63	-92.86	360.28	1718447.11	14276449.66	39°18'51.064"N	80°43'26.825"W	372.05	104.454	2.13	-1.60	-6.76	
4168.00	11.080	96.360	4128.52	-203.92	-94.75	378.61	1718465.44	14276444.20	39°18'51.045"N	80°43'26.592"W	390.28	104.050	0.30	-0.22	1.03	
4263.00	12.000	105.060	4221.61	-212.91	-98.32	397.22	1718484.04	14276444.20	39°18'51.009"N	80°43'26.355"W	409.21	103.903	2.07	0.97	9.16	
4358.00	13.000	99.790	4314.36	-223.11	-102.71	417.28	1718504.10	14276439.82	39°18'50.965"N	80°43'26.100"W	429.74	103.828	1.60	1.05	-5.55	
4452.00	13.300	104.140	4405.90	-233.62	-107.15	438.19	1718524.99	14276435.39	39°18'50.921"N	80°43'25.834"W	451.10	103.741	1.10	0.32	4.63	
4547.00	13.990	101.110	4498.22	-244.83	-112.03	460.05	1718546.85	14276430.50	39°18'50.872"N	80°43'25.556"W	473.50	103.686	1.05	0.73	-3.19	

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Field	Doddridge		
Facility	Deets Pad		

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MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
4642.00	13.740	91.950	4590.46	-254.07	-114.63	482.60	1718569.39	14276427.91	39°18'50.846"N	80°43'25.269"W	496.03	103.361	2.32	-0.26	-9.64	
4737.00	14.530	90.470	4682.58	-261.48	-115.11	505.79	1718592.57	14276427.43	39°18'50.840"N	80°43'24.974"W	518.72	102.821	0.91	0.83	-1.56	
4831.00	13.900	103.560	4773.73	-270.93	-117.85	528.57	1718615.34	14276424.68	39°18'50.812"N	80°43'24.685"W	541.54	102.569	3.48	-0.67	13.93	
4926.00	13.340	119.950	4866.09	-284.88	-126.00	549.16	1718635.93	14276416.54	39°18'50.731"N	80°43'24.423"W	563.43	102.923	4.09	-0.59	17.25	
5021.00	13.800	118.440	4958.44	-301.09	-136.87	568.62	1718655.38	14276405.67	39°18'50.623"N	80°43'24.176"W	584.86	103.534	0.61	0.48	-1.59	
5116.00	14.650	103.060	5050.56	-315.33	-144.98	590.30	1718677.04	14276397.56	39°18'50.542"N	80°43'23.900"W	607.84	103.799	4.06	0.89	-16.19	
5211.00	14.970	96.340	5142.41	-326.38	-149.05	614.19	1718700.93	14276393.49	39°18'50.501"N	80°43'23.596"W	632.02	103.641	1.84	0.34	-7.07	
5306.00	15.220	96.170	5234.13	-336.32	-151.75	638.79	1718729.91	14276390.80	39°18'50.474"N	80°43'23.284"W	656.56	103.363	0.27	0.26	-0.18	
5401.00	15.040	103.010	5325.85	-347.57	-155.86	663.20	1718749.91	14276386.69	39°18'50.432"N	80°43'22.973"W	681.27	103.226	1.89	-0.19	7.20	
5498.00	15.260	104.340	5419.48	-360.67	-161.86	687.83	1718774.53	14276380.69	39°18'50.372"N	80°43'22.660"W	706.61	103.242	0.42	0.23	1.37	
5593.00	15.170	93.900	5511.16	-371.79	-165.80	712.34	1718799.04	14276376.75	39°18'50.333"N	80°43'22.348"W	731.39	103.103	2.88	-0.09	-10.99	
5688.00	14.060	92.340	5603.09	-380.22	-167.12	736.28	1718822.97	14276375.44	39°18'50.319"N	80°43'22.044"W	755.00	102.788	1.24	-1.17	-1.64	
5783.00	13.560	103.380	5695.36	-389.83	-170.17	758.65	1718845.33	14276372.39	39°18'50.288"N	80°43'21.759"W	777.50	102.642	2.82	-0.53	11.62	
5878.00	13.970	98.140	5787.63	-400.50	-174.37	780.83	1718867.50	14276368.19	39°18'50.246"N	80°43'21.477"W	800.06	102.588	1.38	0.43	-5.52	
5973.00	13.050	100.870	5880.00	-410.54	-178.02	802.72	1718889.38	14276364.55	39°18'50.209"N	80°43'21.199"W	822.22	102.504	1.18	-0.97	2.87	
6067.00	14.070	104.180	5971.38	-421.56	-182.82	824.22	1718910.87	14276359.75	39°18'50.161"N	80°43'20.926"W	844.25	102.506	1.36	1.09	3.52	
6162.00	15.980	97.910	6063.14	-433.22	-187.45	848.37	1718935.02	14276355.12	39°18'50.115"N	80°43'20.619"W	868.83	102.459	2.64	2.01	-6.60	
6257.00	18.890	94.010	6153.77	-444.45	-190.32	876.67	1718963.30	14276352.24	39°18'50.085"N	80°43'20.259"W	897.09	102.249	3.30	3.06	-4.11	
6352.00	18.560	97.630	6243.74	-456.49	-193.40	907.00	1718993.62	14276349.16	39°18'50.054"N	80°43'19.873"W	927.39	102.037	1.27	-0.35	3.81	
6446.00	18.600	88.540	6332.86	-466.96	-195.01	936.82	1719023.43	14276347.56	39°18'50.037"N	80°43'19.494"W	956.90	101.759	3.08	0.04	-9.67	
6541.00	13.440	62.770	6424.25	-469.26	-189.56	961.83	1719048.43	14276353.00	39°18'50.090"N	80°43'19.175"W	980.33	101.149	9.13	-5.43	-27.13	
6619.00	15.900	36.810	6499.79	-461.47	-176.84	976.31	1719062.90	14276365.72	39°18'50.216"N	80°43'18.990"W	992.19	100.267	8.91	3.15	-33.28	BH AT Curve <8-1/2"> (6541)-(6619)-(17829)
6665.00	17.120	30.150	6543.89	-453.23	-165.94	983.48	1719070.08	14276376.61	39°18'50.323"N	80°43'18.899"W	997.39	99.577	4.89	2.65	-14.48	
6760.00	20.620	14.320	6633.83	-429.55	-137.62	994.66	1719081.24	14276404.93	39°18'50.603"N	80°43'18.755"W	1004.13	97.877	6.50	3.68	-16.66	
6855.00	26.810	5.030	6720.80	-395.49	-100.02	1000.68	1719087.26	14276442.51	39°18'50.974"N	80°43'18.677"W	1005.67	95.708	7.59	6.52	-9.78	
6950.00	31.980	355.090	6803.59	-351.08	-53.55	1000.40	1719086.99	14276488.96	39°18'51.433"N	80°43'18.679"W	1001.84	93.064	7.47	5.44	-10.46	
6997.00	35.080	351.990	6842.77	-325.60	-27.77	997.46	1719084.04	14276514.73	39°18'51.688"N	80°43'18.716"W	997.84	91.595	7.53	6.60	-6.60	
7016.00†	36.729	351.449	6858.16	-314.60	-16.74	995.85	1719082.44	14276525.75	39°18'51.797"N	80°43'18.736"W	995.99	90.963	8.84	8.68	-2.85	Middlesex: 7016' MD
7045.00	39.250	350.700	6881.01	-296.95	0.89	993.08	1719079.67	14276543.38	39°18'51.972"N	80°43'18.770"W	993.08	89.949	8.84	8.69	-2.58	
7092.00	43.710	350.400	6916.21	-266.13	31.59	987.97	1719074.55	14276574.07	39°18'52.275"N	80°43'18.834"W	988.47	88.169	9.50	9.49	-0.64	



Actual Wellpath Report

Telstar Unit 3H AWP Proj: 17853'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #07
Operator	ANTERO RESOURCES CORPORATION	Well	Telstar Unit 3H
Area	Doddridge Co., WV	Wellbore	Telstar Unit 3H AWB
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (214 stations) † = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
7140.00	47.720	349.310	6949.72	-232.05	65.40	981.90	1719068.50	14276607.87	39°18'52.610"N	80°43'18.910"W	984.08	86.189	8.51	8.35	-2.27	
7187.00	51.580	346.920	6980.15	-196.41	100.44	974.51	1719061.10	14276642.89	39°18'52.956"N	80°43'19.003"W	979.67	84.115	9.08	8.21	-5.09	
7226.00†	55.321	345.462	7003.37	-165.15	130.86	967.02	1719053.62	14276673.29	39°18'53.257"N	80°43'19.097"W	975.84	82.294	10.05	9.59	-3.74	Burkett: 7226' MD
7234.00	56.090	345.180	7007.88	-158.55	137.25	965.35	1719051.95	14276679.68	39°18'53.320"N	80°43'19.118"W	975.06	81.908	10.05	9.62	-3.53	
7281.00	60.470	344.140	7032.58	-118.61	175.79	954.77	1719041.37	14276718.21	39°18'53.702"N	80°43'19.251"W	970.81	79.568	9.51	9.32	-2.21	
7283.00†	60.617	344.100	7033.57	-116.87	177.47	954.29	1719040.89	14276719.89	39°18'53.718"N	80°43'19.257"W	970.65	79.465	7.54	7.33	-2.02	Tully: 7283' MD
7329.00	63.990	343.200	7054.94	-76.15	216.54	942.82	1719029.43	14276758.95	39°18'54.105"N	80°43'19.401"W	967.37	77.065	7.54	7.33	-1.96	
7376.00	67.060	342.930	7074.41	-33.38	257.46	930.36	1719016.97	14276799.85	39°18'54.509"N	80°43'19.558"W	965.33	74.532	6.55	6.53	-0.57	
7424.00	70.760	342.580	7091.68	11.40	300.22	917.08	1719003.70	14276842.59	39°18'54.933"N	80°43'19.725"W	964.97	71.873	7.74	7.71	-0.73	
7462.00†	72.772	341.486	7103.57	47.48	334.55	905.95	1718992.57	14276876.91	39°18'55.272"N	80°43'19.866"W	965.75	69.732	5.96	5.30	-2.88	Marcellus POE: 7462' MD
7471.00	73.250	341.230	7106.20	56.09	342.71	903.20	1718989.82	14276885.06	39°18'55.353"N	80°43'19.900"W	966.03	69.221	5.96	5.31	-2.84	
7519.00	74.860	339.710	7119.39	102.21	386.20	887.77	1718974.40	14276928.54	39°18'55.783"N	80°43'20.095"W	968.13	66.490	4.53	3.35	-3.17	
7566.00	77.010	340.400	7130.81	147.75	429.05	872.22	1718958.85	14276971.37	39°18'56.207"N	80°43'20.291"W	972.03	63.807	4.79	4.57	1.47	
7614.00	80.070	341.080	7140.35	194.77	473.46	856.70	1718943.35	14277015.76	39°18'56.647"N	80°43'20.487"W	978.83	61.073	6.52	6.38	1.42	
7661.00	83.460	341.270	7147.08	241.26	517.48	841.70	1718928.34	14277059.77	39°18'57.082"N	80°43'20.676"W	988.05	58.417	7.22	7.21	0.40	
7709.00	87.780	342.440	7150.74	289.11	562.95	826.80	1718913.45	14277105.22	39°18'57.532"N	80°43'20.864"W	1000.25	55.750	9.32	9.00	2.44	
7804.00	90.860	342.430	7151.87	384.09	653.50	798.13	1718884.80	14277195.73	39°18'58.428"N	80°43'21.225"W	1031.54	50.690	3.24	3.24	-0.01	
7898.00	90.400	341.290	7150.84	478.07	742.82	768.87	1718855.55	14277285.02	39°18'59.312"N	80°43'21.594"W	1069.09	45.987	1.31	-0.49	-1.21	
7993.00	90.280	338.960	7150.27	572.98	832.16	736.58	1718823.26	14277374.32	39°19'00.195"N	80°43'22.001"W	1111.32	41.513	2.46	-0.13	-2.45	
8088.00	89.660	336.630	7150.32	667.65	920.10	700.68	1718787.38	14277462.23	39°19'01.066"N	80°43'22.455"W	1156.52	37.290	2.54	-0.65	-2.45	
8183.00	89.350	337.000	7151.14	762.17	1007.43	663.28	1718749.99	14277549.52	39°19'01.930"N	80°43'22.927"W	1206.17	33.360	0.51	-0.33	0.39	
8278.00	88.920	339.820	7152.58	856.90	1095.74	628.33	1718715.06	14277637.80	39°19'02.804"N	80°43'23.368"W	1263.11	29.831	3.00	-0.45	2.97	
8372.00	91.020	345.050	7152.63	950.86	1185.33	599.97	1718686.71	14277727.35	39°19'03.690"N	80°43'23.725"W	1328.52	26.847	6.00	2.23	5.56	
8467.00	89.450	339.710	7152.24	1045.82	1275.83	571.22	1718657.98	14277817.82	39°19'04.586"N	80°43'24.088"W	1397.87	24.119	5.86	-1.65	-5.62	
8562.00	89.260	341.860	7153.31	1140.77	1365.53	539.96	1718626.73	14277907.48	39°19'05.473"N	80°43'24.482"W	1468.41	21.575	2.27	-0.20	2.28	
8657.00	89.660	343.810	7154.20	1235.76	1456.29	511.93	1718598.71	14277998.20	39°19'06.371"N	80°43'24.835"W	1543.65	19.368	2.10	0.42	2.05	
8752.00	89.450	343.340	7154.94	1330.74	1547.41	485.07	1718571.86	14278089.29	39°19'07.272"N	80°43'25.173"W	1621.65	17.405	0.54	-0.22	-0.49	
8847.00	89.480	343.240	7155.83	1425.72	1638.39	457.75	1718544.55	14278180.24	39°19'08.172"N	80°43'25.517"W	1701.14	15.610	0.11	0.03	-0.11	
8942.00	89.600	343.200	7156.59	1520.72	1729.35	430.33	1718517.14	14278271.15	39°19'09.072"N	80°43'25.863"W	1782.08	13.974	0.13	0.13	-0.04	
9036.00	89.660	343.790	7157.20	1614.70	1819.47	403.62	1718490.44	14278361.24	39°19'09.964"N	80°43'26.199"W	1863.70	12.508	0.63	0.06	0.63	



Actual Wellpath Report

Telstar Unit 3H AWP Proj: 17853'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Telstar Unit 3H
Area	Wellbore	Telstar Unit 3H AWB
Field		
Facility		

WELLPATH DATA (214 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
9131.00	89.850	342.600	1709.69	1709.69	1910.41	376.16	1718462.99	14278452.15	39°19'10.863"N	80°43'26.545"W	1947.09	11.139	1.27	0.20	-1.25	
9226.00	89.540	342.950	1758.11	1804.69	2001.15	348.03	1718434.87	14278542.85	39°19'11.761"N	80°43'26.899"W	2031.19	9.866	0.49	-0.33	0.37	
9321.00	90.150	343.840	1758.36	1899.68	2092.18	320.88	1718407.73	14278633.85	39°19'12.662"N	80°43'27.241"W	2116.65	8.720	1.14	0.64	0.94	
9416.00	88.920	343.840	1759.14	1994.65	2183.43	294.44	1718381.30	14278725.05	39°19'13.564"N	80°43'27.574"W	2203.19	7.680	1.29	-1.29	0.00	
9510.00	89.940	340.850	1760.07	2088.63	2272.93	265.78	1718352.65	14278814.52	39°19'14.450"N	80°43'27.935"W	2288.42	6.669	3.56	1.09	-3.39	
9605.00	89.600	338.700	1761.45	2183.50	2362.01	232.78	1718319.67	14278903.57	39°19'15.331"N	80°43'28.352"W	2373.45	5.629	2.08	-0.36	-2.05	
9700.00	89.420	339.110	1761.27	2278.31	2450.64	198.59	1718285.49	14278992.16	39°19'16.208"N	80°43'28.763"W	2458.68	4.633	0.47	-0.19	0.43	
9795.00	89.320	340.480	1762.31	2373.19	2539.79	165.78	1718252.15	14279081.27	39°19'17.090"N	80°43'29.197"W	2545.19	3.735	1.45	-0.11	1.44	
9890.00	88.860	343.250	1763.82	2468.16	2630.05	136.22	1718223.15	14279171.50	39°19'17.983"N	80°43'29.570"W	2633.57	2.965	2.96	-0.48	2.92	
9984.00	90.680	343.790	1764.20	2562.14	2720.18	109.56	1718196.49	14279261.60	39°19'18.875"N	80°43'29.906"W	2722.39	2.306	2.02	1.94	0.57	
10079.00	89.320	343.370	1764.20	2657.13	2811.31	82.70	1718169.65	14279352.68	39°19'19.776"N	80°43'30.244"W	2812.52	1.685	1.50	-1.43	-0.44	
10174.00	90.550	344.050	1764.30	2752.10	2902.49	56.06	1718143.02	14279443.83	39°19'20.678"N	80°43'30.580"W	2903.03	1.106	1.48	1.29	0.72	
10269.00	89.480	343.080	1764.28	2847.09	2993.60	29.18	1718116.15	14279534.91	39°19'21.580"N	80°43'30.918"W	2993.75	0.558	1.52	-1.13	-1.02	
10364.00	89.660	342.820	1764.99	2942.08	3084.43	1.33	1718088.31	14279625.70	39°19'22.478"N	80°43'31.269"W	3084.43	0.025	0.33	0.19	-0.27	
10459.00	89.110	341.740	1766.01	3037.07	3174.91	-27.59	1718059.40	14279716.15	39°19'23.373"N	80°43'31.633"W	3175.03	359.502	1.28	-0.58	-1.14	
10554.00	89.480	343.250	1767.18	3132.06	3265.50	-56.16	1718030.84	14279806.70	39°19'24.270"N	80°43'31.993"W	3265.99	359.015	1.64	0.39	1.59	
10648.00	89.720	342.890	1767.84	3226.06	3355.43	-83.53	1718003.48	14279896.59	39°19'25.159"N	80°43'32.338"W	3356.47	358.574	0.46	0.26	-0.38	
10743.00	89.690	343.690	1768.33	3321.05	3446.41	-110.85	1717976.18	14279987.54	39°19'26.059"N	80°43'32.682"W	3448.20	358.158	0.84	-0.03	0.84	
10838.00	89.820	342.790	1768.73	3416.04	3537.38	-138.24	1717948.80	14280078.47	39°19'26.959"N	80°43'33.027"W	3540.08	357.762	0.96	0.14	-0.95	
10933.00	89.850	343.070	1769.01	3511.03	3628.19	-166.13	1717920.92	14280169.25	39°19'27.858"N	80°43'33.379"W	3631.99	357.378	0.30	0.03	0.29	
11027.00	90.150	343.400	1769.01	3605.03	3718.20	-193.24	1717893.82	14280259.22	39°19'28.748"N	80°43'33.720"W	3723.21	357.025	0.47	0.32	0.35	
11122.00	89.820	341.630	1769.03	3700.02	3808.80	-221.78	1717865.29	14280349.79	39°19'29.644"N	80°43'34.060"W	3815.25	356.668	1.90	-0.35	-1.86	
11217.00	90.000	341.980	1769.18	3795.02	3899.05	-251.45	1717835.63	14280440.00	39°19'30.537"N	80°43'34.454"W	3907.15	356.310	0.41	0.19	0.37	
11312.00	89.850	340.540	1769.30	3889.99	3989.01	-281.97	1717805.13	14280529.93	39°19'31.427"N	80°43'34.839"W	3998.97	355.957	1.52	-0.16	-1.52	
11407.00	88.770	340.810	1770.45	3984.93	4078.65	-313.40	1717773.70	14280619.53	39°19'32.314"N	80°43'35.235"W	4090.68	355.606	1.17	-1.14	0.28	
11502.00	89.570	343.450	1771.82	4079.91	4169.05	-342.55	1717744.57	14280709.89	39°19'33.209"N	80°43'35.603"W	4183.10	355.303	2.90	0.84	2.78	
11597.00	90.650	343.690	1771.64	4174.89	4260.17	-369.42	1717717.71	14280800.98	39°19'34.110"N	80°43'35.941"W	4276.16	355.044	1.16	1.14	0.25	
11691.00	90.280	344.830	1770.88	4268.84	4350.64	-394.91	1717692.22	14280891.41	39°19'35.005"N	80°43'36.262"W	4368.53	354.813	1.28	-0.39	1.21	
11786.00	89.720	341.130	1770.88	4363.82	4441.46	-422.72	1717664.43	14280982.20	39°19'35.903"N	80°43'36.612"W	4461.53	354.563	3.94	-0.59	-3.89	
11881.00	88.680	342.430	1772.21	4458.80	4531.69	-452.42	1717634.74	14281072.39	39°19'36.796"N	80°43'36.987"W	4554.22	354.299	1.75	-1.09	1.37	

Actual Wellpath Report

Teistar Unit 3H AWP Proj: 17853'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #07
Operator	ANTERO RESOURCES CORPORATION	Well	Teistar Unit 3H
Area	Doddridge Co., WV	Wellbore	Teistar Unit 3H AWB
Field	Doddridge		
Facility	Deets Pad		

WELLPATH DATA (214 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
11976.00	90.460	343.970	7172.92	4553.79	4622.63	-479.87	1717607.30	14281163.29	39°19'37.696"N	80°43'37.333"W	4647.47	354.073	2.48	1.87	1.62	
12071.00	90.310	341.620	7172.28	4648.78	4713.37	-507.97	1717579.21	14281253.99	39°19'38.593"N	80°43'37.687"W	4740.66	353.849	2.48	-0.16	-2.47	
12165.00	90.120	341.350	7171.93	4742.76	4802.50	-537.82	1717549.37	14281343.09	39°19'39.475"N	80°43'38.063"W	4832.52	353.610	0.35	-0.20	-0.29	
12260.00	90.400	343.800	7171.50	4837.75	4893.13	-566.26	1717520.94	14281433.69	39°19'40.372"N	80°43'38.422"W	4925.79	353.399	2.60	0.29	2.58	
12355.00	90.000	342.930	7171.16	4932.74	4984.15	-593.46	1717493.75	14281524.68	39°19'41.272"N	80°43'38.764"W	5019.36	353.210	1.01	-0.42	-0.92	
12450.00	90.060	340.880	7171.12	5027.73	5074.45	-622.96	1717464.26	14281614.94	39°19'42.166"N	80°43'39.136"W	5112.55	353.001	2.16	0.06	-2.16	
12545.00	89.910	341.470	7171.14	5122.70	5164.37	-653.62	1717433.62	14281704.82	39°19'43.055"N	80°43'39.523"W	5205.57	352.787	0.64	-0.16	0.62	
12639.00	89.690	344.120	7171.47	5216.69	5254.15	-681.42	1717405.83	14281794.57	39°19'43.943"N	80°43'39.873"W	5298.16	352.610	2.83	-0.23	2.82	
12734.00	90.120	345.010	7171.63	5311.63	5345.73	-706.70	1717380.56	14281886.10	39°19'44.849"N	80°43'40.192"W	5392.24	352.469	1.04	0.45	0.94	
12829.00	91.290	343.010	7170.46	5406.59	5437.04	-732.87	1717354.40	14281977.38	39°19'45.752"N	80°43'40.521"W	5486.21	352.323	2.44	1.23	-2.11	
12924.00	89.880	341.700	7169.49	5501.58	5527.56	-761.66	1717325.62	14282067.87	39°19'46.648"N	80°43'40.884"W	5579.79	352.154	2.03	-1.48	-1.38	
13019.00	90.430	343.480	7169.23	5596.57	5618.20	-790.09	1717297.21	14282158.47	39°19'47.545"N	80°43'41.242"W	5673.49	351.995	1.96	0.58	1.87	
13114.00	90.090	343.380	7168.80	5691.56	5709.26	-817.18	1717270.12	14282249.49	39°19'48.446"N	80°43'41.584"W	5767.44	351.854	0.37	-0.36	-0.11	
13209.00	90.590	342.370	7168.23	5786.56	5800.04	-845.15	1717242.16	14282340.24	39°19'49.344"N	80°43'41.936"W	5861.29	351.710	1.19	0.53	-1.06	
13303.00	89.850	342.850	7167.87	5880.56	5889.74	-873.25	1717214.08	14282429.91	39°19'50.231"N	80°43'42.290"W	5954.13	351.566	0.94	-0.79	0.51	
13398.00	89.660	343.440	7168.28	5975.55	5980.66	-900.79	1717186.55	14282520.79	39°19'51.130"N	80°43'42.637"W	6048.12	351.435	0.65	-0.20	0.62	
13493.00	89.690	343.010	7168.82	6070.54	6071.62	-928.21	1717159.14	14282611.71	39°19'52.030"N	80°43'42.983"W	6142.16	351.308	0.45	0.03	-0.45	
13588.00	89.690	343.090	7169.33	6165.54	6162.49	-955.90	1717131.45	14282702.54	39°19'52.929"N	80°43'43.332"W	6236.19	351.183	0.08	0.00	0.08	
13683.00	89.780	342.540	7169.77	6260.53	6253.25	-983.97	1717103.40	14282793.27	39°19'53.827"N	80°43'43.685"W	6330.19	351.058	0.59	0.09	-0.58	
13778.00	89.600	344.190	7170.29	6355.52	6344.27	-1011.17	1717076.21	14282884.25	39°19'54.727"N	80°43'44.028"W	6424.34	350.944	1.75	-0.19	1.74	
13872.00	89.540	342.500	7170.99	6449.50	6434.32	-1038.11	1717049.28	14282974.26	39°19'55.618"N	80°43'44.367"W	6517.52	350.835	1.80	-0.06	-1.80	
13967.00	89.540	343.290	7171.75	6544.50	6525.11	-1066.05	1717021.35	14283065.02	39°19'56.516"N	80°43'44.720"W	6611.62	350.721	0.83	0.00	0.83	
14062.00	89.970	342.660	7172.16	6639.49	6615.95	-1093.86	1716993.55	14283155.82	39°19'57.415"N	80°43'45.070"W	6705.76	350.612	0.80	0.45	-0.66	
14157.00	89.510	342.210	7172.59	6734.49	6706.52	-1122.53	1716964.89	14283246.36	39°19'58.311"N	80°43'45.431"W	6799.81	350.498	0.68	-0.48	-0.47	
14252.00	89.850	341.620	7173.12	6829.48	6796.82	-1152.02	1716935.42	14283336.63	39°19'59.204"N	80°43'45.803"W	6893.76	350.380	0.72	0.36	-0.62	
14347.00	90.000	342.610	7173.25	6924.48	6887.23	-1181.19	1716906.25	14283427.00	39°20'00.099"N	80°43'46.171"W	6987.78	350.268	1.05	0.16	1.04	
14442.00	89.880	344.030	7173.35	7019.47	6978.23	-1208.46	1716879.00	14283517.96	39°20'00.999"N	80°43'46.515"W	7082.09	350.175	1.50	-0.13	1.49	
14537.00	90.370	343.390	7173.14	7114.45	7069.41	-1235.11	1716852.36	14283609.11	39°20'01.901"N	80°43'46.850"W	7176.50	350.090	0.85	0.52	-0.67	
14631.00	89.720	340.140	7173.07	7208.43	7158.68	-1264.52	1716822.96	14283698.34	39°20'02.784"N	80°43'47.221"W	7269.51	349.983	3.53	-0.69	-3.46	
14726.00	89.080	338.980	7174.06	7303.29	7247.69	-1297.69	1716789.80	14283787.32	39°20'03.665"N	80°43'47.640"W	7362.95	349.849	1.39	-0.67	-1.22	

Actual Wellpath Report

Telstar Unit 3H AWP Proj: 17853'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Telstar Unit 3H
Doddridge Co., WV	Wellbore	Telstar Unit 3H AWP
Doddridge		
Deets Pad		

WELLPATH DATA (214 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
14821.00	89.940	340.210	7174.87	7398.16	7336.73	-1330.81	1716756.69	14283876.32	39°20'04.546"N	80°43'48.058"W	7456.45	349.719	1.58	0.91	1.29	
14916.00	90.000	339.840	7174.92	7493.07	7426.01	-1363.27	1716724.25	14283965.57	39°20'05.429"N	80°43'48.468"W	7550.11	349.597	0.39	0.06	-0.39	
15011.00	90.180	340.080	7174.77	7587.97	7515.26	-1395.82	1716691.71	14284054.78	39°20'06.312"N	80°43'48.879"W	7643.78	349.478	0.32	0.19	0.25	
15106.00	90.220	338.420	7174.44	7682.81	7604.09	-1429.48	1716658.07	14284143.58	39°20'07.191"N	80°43'49.304"W	7737.29	349.353	1.75	0.04	-1.75	
15200.00	89.850	337.120	7174.38	7776.48	7691.10	-1465.04	1716622.52	14284230.56	39°20'08.052"N	80°43'49.753"W	7829.39	349.215	1.44	-0.39	-1.38	
15295.00	89.690	340.000	7174.77	7871.24	7779.52	-1499.76	1716587.81	14284318.94	39°20'08.927"N	80°43'50.191"W	7922.77	349.088	3.04	-0.17	3.03	
15390.00	88.950	340.990	7175.89	7966.17	7869.06	-1531.48	1716556.11	14284408.44	39°20'09.813"N	80°43'50.592"W	8016.70	348.987	1.30	-0.78	1.04	
15485.00	90.550	344.310	7176.31	8061.15	7959.72	-1559.80	1716527.80	14284499.07	39°20'10.710"N	80°43'50.949"W	8111.11	348.913	3.88	1.68	3.49	
15580.00	89.380	342.810	7176.37	8156.13	8050.83	-1586.88	1716500.92	14284590.14	39°20'11.611"N	80°43'51.287"W	8205.70	348.851	2.00	-1.23	-1.58	
15675.00	90.120	343.560	7176.78	8251.12	8141.77	-1614.17	1716473.45	14284681.04	39°20'12.511"N	80°43'51.634"W	8300.24	348.786	1.11	0.78	0.79	
15770.00	90.030	342.920	7176.66	8346.11	8232.73	-1641.56	1716446.07	14284771.97	39°20'13.411"N	80°43'51.979"W	8394.80	348.723	0.68	-0.09	-0.67	
15865.00	90.090	343.830	7176.56	8441.10	8323.76	-1668.74	1716418.90	14284862.96	39°20'14.311"N	80°43'52.321"W	8489.39	348.664	0.96	0.06	0.96	
15960.00	89.200	343.970	7177.14	8536.07	8415.03	-1695.08	1716392.57	14284954.20	39°20'15.214"N	80°43'52.653"W	8584.06	348.611	0.95	-0.94	0.15	
16055.00	90.920	343.120	7177.05	8631.06	8506.14	-1721.99	1716365.67	14285045.27	39°20'16.115"N	80°43'52.992"W	8678.69	348.556	2.02	1.81	-0.89	
16149.00	89.780	342.470	7176.47	8725.05	8595.93	-1749.80	1716337.88	14285135.02	39°20'17.004"N	80°43'53.343"W	8772.21	348.494	1.40	-1.21	-0.69	
16244.00	89.570	343.290	7177.01	8820.05	8686.72	-1777.76	1716309.92	14285225.77	39°20'17.902"N	80°43'53.695"W	8866.76	348.434	0.89	-0.22	0.86	
16339.00	89.850	343.530	7177.49	8915.04	8777.76	-1804.88	1716282.81	14285316.78	39°20'18.803"N	80°43'54.037"W	8961.40	348.381	0.39	0.29	0.25	
16434.00	89.600	342.440	7177.95	9010.03	8868.60	-1832.68	1716255.02	14285407.58	39°20'19.701"N	80°43'54.387"W	9055.98	348.324	1.18	-0.26	-1.15	
16529.00	89.850	342.540	7178.40	9105.03	8959.20	-1861.27	1716226.45	14285498.15	39°20'20.597"N	80°43'54.748"W	9150.49	348.264	0.28	0.26	0.11	
16624.00	89.940	342.440	7178.58	9200.03	9049.79	-1889.85	1716197.88	14285588.71	39°20'21.494"N	80°43'55.108"W	9245.01	348.205	0.14	0.09	-0.11	
16719.00	89.510	342.680	7179.03	9295.03	9140.43	-1918.32	1716169.42	14285679.30	39°20'22.390"N	80°43'55.467"W	9339.56	348.147	0.52	-0.45	0.25	
16814.00	88.770	344.070	7180.46	9390.00	9231.44	-1945.50	1716142.25	14285770.28	39°20'23.291"N	80°43'55.809"W	9434.22	348.099	1.66	-0.78	1.46	
16909.00	88.800	339.610	7182.47	9484.95	9321.67	-1975.09	1716112.67	14285860.47	39°20'24.183"N	80°43'56.183"W	9528.61	348.037	4.69	0.03	-4.69	
17004.00	88.710	335.430	7184.54	9579.54	9409.41	-2011.40	1716076.38	14285948.18	39°20'25.052"N	80°43'56.642"W	9621.99	347.934	4.40	-0.09	-4.40	
17098.00	88.610	338.450	7186.74	9673.05	9495.86	-2048.20	1716039.59	14286034.60	39°20'25.907"N	80°43'57.107"W	9714.24	347.828	3.21	-0.11	3.21	
17193.00	88.710	348.030	7188.96	9767.91	9586.70	-2075.56	1716012.24	14286125.40	39°20'26.806"N	80°43'57.451"W	9808.81	347.784	10.08	0.11	10.08	
17288.00	88.770	346.180	7191.05	9862.58	9679.27	-2096.75	1715991.05	14286217.94	39°20'27.721"N	80°43'57.718"W	9903.77	347.777	1.95	0.06	-1.95	
17383.00	89.020	340.350	7192.89	9957.52	9770.19	-2124.09	1715963.73	14286308.82	39°20'28.621"N	80°43'58.062"W	9998.42	347.734	6.14	0.26	-6.14	
17477.00	89.020	340.590	7194.50	10051.44	9858.77	-2155.51	1715932.32	14286397.37	39°20'29.497"N	80°43'58.459"W	10091.66	347.667	0.26	0.00	0.26	
17572.00	88.370	343.050	7196.66	10146.40	9949.00	-2185.14	1715902.70	14286487.56	39°20'30.390"N	80°43'58.833"W	10186.14	347.613	2.68	-0.68	2.59	



Actual Wellpath Report

Telstar Unit 3H AWP Proj: 17853'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Telstar Unit 3H
Doddridge Co., WV	Wellbore	Telstar Unit 3H AWB
Doddridge		
Deets Pad		

WELLPATH DATA (214 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
17667.00	88.980	339.100	7198.86	10241.33	10038.82	-2215.94	1715871.92	14286577.35	39°20'31.278"N	80°43'59.221"W	10280.48	347.552	4.21	0.64	-4.16	
17762.00	88.580	337.350	7200.88	10336.03	10127.02	-2251.17	1715836.70	14286665.51	39°20'32.151"N	80°43'59.666"W	10374.21	347.467	1.89	-0.42	-1.84	
17829.00	87.850	337.630	7202.97	10402.74	10188.88	-2276.81	1715811.07	14286727.35	39°20'32.763"N	80°43'59.990"W	10440.17	347.404	1.17	-1.09	0.42	
17853.00	87.850	337.630	7203.87	10426.63	10211.06	-2285.94	1715801.95	14286749.52	39°20'32.983"N	80°44'00.106"W	10463.81	347.381	0.00	0.00	0.00	Projected MD at TD: 17853'

HOLE & CASING SECTIONS - Ref Wellbore: Telstar Unit 3H AWB Ref Wellpath: Telstar Unit 3H AWP Proj: 17853'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	End N/S [ft]	Start E/W [ft]	End E/W [ft]	End E/W [ft]
20in Conductor	25.50	105.50	80.00	25.50	105.50	0.00	0.10	0.00	0.31	0.31
17.5in Open Hole	105.50	405.00	299.50	105.50	404.99	0.10	0.32	0.31	0.00	2.40
13.375in Casing Surface	25.50	390.00	364.50	25.50	389.99	0.00	0.00	0.00	0.00	2.24
12.25in Open Hole	405.00	2636.00	2231.00	404.99	2632.86	0.27	-30.29	2.40	0.00	67.97
9.625in Casing Intermediate	25.50	2583.00	2557.50	25.50	2580.02	0.00	-28.55	0.00	0.00	64.20
8.75in Open Hole	2636.00	6642.00	4006.00	2632.86	6521.87	-30.29	-171.59	67.97	979.99	979.99
8.5in Open Hole	6642.00	17853.00	11211.00	6521.87	7203.87	-171.59	10211.06	979.99	979.99	-2285.94
5.5in Casing Production	25.50	17853.00	17827.50	25.50	7203.87	0.00	10211.06	0.00	0.00	-2285.94



Actual Wellpath Report

Telstar Unit 3H AWP Proj: 17853'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Telstar Unit 3H
Area	Wellbore	Telstar Unit 3H AWB
Field		
Facility		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Telstar Unit 3H - POE - Rev-2	7106.00	316.89	877.03	1718963.67	14276859.25	39°18'55.098"N	80°43'20.234"W	point
Telstar Unit 3H - BHL - Rev-3	7150.00	10255.45	-2248.00	1715839.86	14286793.89	39°20'33.420"N	80°43'59.621"W	point
Telstar Unit 3H - LP - Rev-2	7150.00	569.45	797.62	1718884.28	14277111.72	39°18'57.597"N	80°43'21.235"W	point

WELLPATH COMPOSITION - Ref Wellbore: Telstar Unit 3H AWB Ref Wellpath: Telstar Unit 3H AWP Proj: 17853'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.50	393.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-393')	Telstar Unit 3H AWB
393.00	2568.00	BHI NaviTrak (Axial)	02 APS EM <12-1/4">(393')(427'-2568')	Telstar Unit 3H AWB
2568.00	6541.00	BHI NaviTrak (Axial)	03 APS EM <8-3/4">(2568')(2648'-6541')	Telstar Unit 3H AWB
6541.00	17829.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2">(6541')(6619'-17829')	Telstar Unit 3H AWB
17829.00	17853.00	Blind Drilling (std)	Projection to bit	Telstar Unit 3H AWB



Actual Wellpath Report

Telstar Unit 3H AWP Proj: 17853'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Telstar Unit 3H
Doddridge Co., WV	Wellbore	Telstar Unit 3H AWB
Doddridge		
Deets Pad		

COMMENTS

Wellpath general comments

API: 47-017-06831-0000
 BHI Job #: 109894689B
 Rig: H&P 317
 Duration: 07/05/2019-08/21/2019
 Gyrodatta MS Gyro <17-1/2">(100'-393')
 APS EM <12-1/4">(393')(427'-2568')
 APS EM <8-3/4"> (2568')(2648'-6541')
 BH AT Curve <8-1/2"> (6541')(6619'-17829')
 Middlesex: 7016' MD
 Burkett: 7226' MD
 Tully: 7283' MD
 Marcellus POE: 7462' MD
 Projected MD at TD: 17853'